

Abstract of the Disclosure

A first dielectric wall and a second dielectric wall in which hollow alumina cylindrical columns are arranged in a layered form so that the /axial centers of the alumina cylindrical columns have planar triangular lattice arrays, are each other / in parallel with air therebetween. Metal plates are opposed to each other with both end faces of the alumina cylindrical columns constituting the first dielectric wal/1 and the second dielectric wall being interposed therebetween. Further, the first and dielectric walls and and the metal plates are bonded to one another, whereby/a high-frequency waveguide is configured which in radiation loss, inexpensive and transmission loss.